## REMARKS

Applicants respectfully acknowledge receipt of the Office Action mailed June 4, 2004. In that Office Action, the Examiner (1) withdrew the indicated allowability of claims 30-42; (2) acknowledged Applicant's election of Group I and the metallic species; (3) required corrected drawings; and (4) rejected Claims 10-11, 16, 20-21, 30-42 and 44 as anticipated under 35 U.S.C. § 102(e) or obvious under 103(a) by or in view of U.S. Patent 6,517,763 to *Zakhidov et al.*.

In response, applicants have amended claims 10, 16, 30 and 44 to require that the ordered, monodisperse porous polymer be deformed so that it includes non-spherical voids, which are in turn filled by the precursor of the second-generation colloid. This amendment distinguishes the pending claims from *Zakhidov*, which teaches the use of spherical templates to form a volumetrically-templated or surface-templated inverse opal having spherical voids, which in turn may be used to form an opal lattice.

With respect to non-spherical colloids, the Examiner states, "The ellipsoidal colloids read on and would have been expected for the ordered materials with a lattice formed from sintering. Said structure would be expected to follow through the templating to the final materials formed."

First, and contrary to the Examiner's assertion, the sintering disclosed by *Zakhidov* does not result in a porous material that includes non-spherical pores. In fact, *Zakhidov* teaches away from non-spherical pores throughout his disclosure. Specifically, *Zakhidov* teaches that an "extended interface" should be formed between adjacent spheres by sintering the spheres. Notably, he states "Such sintering process should preferably be accomplished at below the temperature at which the spheres become sufficiently fluid that a nearly spherical shape can not be maintained. . . .The flow of silica between spheres at high temperatures creates the necks of finite diameter. . . without substantially changing the spherical shape of each ball." (col. 7, l. 61 to, p. 8, l. 9., emphasis added.)

Second, the formation of necks between adjacent spheres does not constitute the formation of "non-spherical pores" as that term is used in the present case. It is clear from the Figures in both *Zakhidov* and the present case that the pores themselves remain substantially spherical despite the formation of necks. This is to be contrasted with the shape of the pores shown in Figure 12 of the present case, in which it is clear that the pores themselves are distinctly non-spherical. To further highlight this distinction with respect to certain embodiments, claims 21 and 42 have been amended to recite that the second-generation colloid comprises ellipsoidal particles. Similarly,

claim 41 requires that second-generation colloid comprises oblate particles. While the present invention as set out in claim 1 is not limited to ellipsoidal and oblate particles, claims 21 and 42 distinguish over the teachings of *Zakhidov* and are allowable in their own right.

The claims as amended neither anticipated by nor obvious in view of the art of record. For these reasons, applicants respectfully traverse the Examiner's rejections and request reconsideration and allowance of claims 10 – 21, 30-42 and 44.

Replacement Drawings

In response to the Examiner's requirement, replacement drawings are submitted herewith.

Information Disclosure Statement

Applicants submit herewith a Supplemental Information Disclosure Statement.

Conclusion

Applicants believe that they have fully responded to the Office Action. If the Examiner has any questions or comments, or otherwise feels it would be advantageous, he is encouraged to telephone the undersigned at (713) 238-8043.

Respectfully submitted,

MARCELLA D. WATKINS
Reg. No. 36,962
Conley, Rose & Tayon, P.C.
P. O. Box 3267
Houston, Texas 77253-3267
(713) 238-8000
ATTORNEY FOR APPLICANT